

WHAT IS CLAIMED IS:

1. A color cathode-ray tube comprising an in-line electron gun, wherein side beams of three electron beams pass through localized barrel magnetic fields formed, in a direction substantially perpendicular to an in-line plane, corresponding to the side beams, respectively, and cross-sectional shapes of the side beams are varied so that the cross-sectional shape of one of the side beams is horizontally or vertically elongated to a higher degree than that to which the cross-sectional shape of the other of the side beams is.
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2. A color cathode-ray tube comprising an in-line electron gun, wherein at an end, on a screen side, of the electron gun, two pairs of members for generating a magnetic field are placed above and below side beams of three electron beams so as to sandwich them, respectively, and between each of the two pairs of members for generating a magnetic field, a localized barrel magnetic field is formed to vary cross-sectional shapes of the side beams so that the cross-sectional shape of one of the side beams is horizontally or vertically elongated to a higher degree than that to which the cross-sectional shape of the other of the side beams is.
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3. The color cathode-ray tube according to claim 2, wherein a strength of the localized magnetic field formed between each of the two pairs of members for generating a magnetic field varies depending on a level of horizontal deflection.
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4. The color cathode-ray tube according to claim 2, wherein the localized magnetic field formed between each of the two pairs of members for generating a magnetic field is induced by a horizontal deflection magnetic field generated by a deflection yoke.
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5. The color cathode-ray tube according to claim 2, wherein the two pairs of members for generating a magnetic field have plate-like magnetic bodies placed in planes perpendicular to an in-line direction and parallel to a direction in which the three electron beams travel, and the plate-like magnetic bodies are positioned in locations shifted inward from planes passing through central axes of the side beams.
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6. The color cathode-ray tube according to claim 5, wherein ends, on a side of the electron beams, of the plate-like magnetic bodies are bent and planes parallel to the in-line direction are formed.

5 7. The color cathode-ray tube according to claim 2, wherein the two pairs of members for generating a magnetic field are four substantially V-shaped magnetic pieces attached to an inner face of a cylindrical body.

10 8. The color cathode-ray tube according to claim 2, wherein a further pair of members for generating a magnetic field is placed above and below a center beam of the three electron beams so as to sandwich it, thus allowing a localized barrel magnetic field to act on the center beam.

15 9. A color cathode-ray tube comprising an in-line electron gun, wherein at an end, on a screen side, of the in-line electron gun, two pairs of plate-like members are placed above and below side beams of three electron beams so as to sandwich them, respectively,

20 the two pairs of plate-like members have plate-like magnetic bodies placed in planes perpendicular to an in-line direction and parallel to a direction in which the three electron beams travel, and

the plate-like magnetic bodies are positioned in locations shifted inward from planes passing through central axes of the side beams.

25 10. The color cathode-ray tube according to claim 9, wherein ends, on a side of the electron beams, of the plate-like magnetic bodies are bent and planes parallel to the in-line direction are formed.

30 11. The color cathode-ray tube according to claim 9, wherein the two pairs of plate-like members are four substantially V-shaped magnetic pieces attached to an inner face of a cylindrical body.

12. The color cathode-ray tube according to claim 9, wherein a further pair of plate-like members is placed above and below a center beam of the three electron beams so as to sandwich it, and

35 the further pair of plate-like members has plate-like magnetic bodies placed in a plane that is perpendicular to the in-line direction and passes through a central axis of the center beam.

13. A color cathode-ray tube apparatus comprising:
any one of the color cathode-ray tubes according to claims 1, 2, and
-9; and

5 a deflection yoke for generating a pincushion-type horizontal
deflection magnetic field and a barrel-type vertical deflection magnetic field.